

REMARKS

This Amendment responds to the Office Action mailed on November 05, 2003. Claim 1 is cancelled by this Amendment and new claims 2-15 are added. In addition, the specification has been amended to more clearly identify the related applications. No new matter has been added by these amendments.

In the Office Action, claim 1 was rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,118,989 ("Abe"). Claim 1 has been cancelled by this Amendment.

The new claims 2-15 are each patentably distinct from the cited references, including the Abe reference. For example, new independent claims 2 and 10 recite:

2. (New) A low noise amplifier (LNA) circuit for use in a mobile communications device, comprising:

an amplification circuit operable to receive a radio frequency (RF) input signal and apply a gain to the RF input signal to generate a radio frequency (RF) output signal, the amplification circuit including a degeneration inductor for improving the linearity of the amplification circuit;

a bypass switching network operable to switch the LNA between a high-gain mode and a low-gain mode, wherein the gain applied to the RF input signal in high-gain mode is greater than the gain applied to the RF input signal in low-gain mode; and

an output impedance matching inductor coupled to the RF output signal;

the output impedance matching inductor being fabricated on a substrate material in proximity to the degeneration inductor, wherein the polarities of the output impedance matching inductor and the degeneration inductor are selected to induce a negative feedback in the degeneration inductor.

10. (New) A mobile communications device having a staged amplification sub-system, wherein at least one stage of the staged amplification sub-system includes a low noise amplifier circuit (LNA), the LNA circuit comprising:

an amplification circuit operable to receive a radio frequency (RF) input signal and apply a gain to generate an RF output signal;

a bypass switching network coupled between the RF input signal and the RF output signal and configured to bypass the amplification circuit when the LNA is in a low-gain mode by coupling the RF input signal to the RF output signal;

a match adjustment circuit coupled to the bypass switching network and operable to couple the RF input signal to an impedance when the LNA is in the low-gain mode; and

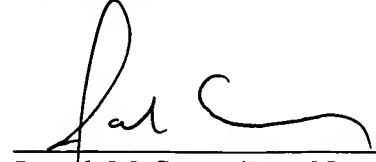
a biasing network coupled to the amplification circuit and operable to control the gain applied by the amplification circuit, the biasing network forming a current mirror with the amplification circuit.

Even a cursory examination of the references cited in the Office Action reveals that the cited references, either alone or in combination, do not disclose, teach, suggest or motivate all of the claimed elements of the Applicant's invention. For example, neither the Abe reference nor any other cited reference discloses an "output impedance matching inductor being fabricated on a substrate material in proximity to the degeneration inductor, wherein the polarities of the output impedance matching inductor and the degeneration inductor are selected to induce a negative feedback in the degeneration inductor," as recited in new independent claim 2. Nor do any of the cited references disclose "a biasing network coupled to the amplification circuit and operable to control the gain applied by the amplification circuit, the biasing network forming a current mirror with the amplification circuit," as recited in new independent claim 10.

For the foregoing reasons, Applicants respectfully submit that claims 2-15 are in condition for allowance. The Examiner is, therefore, respectfully requested to enter this Amendment and pass this case to issue.

Respectfully submitted,

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